

**PATENT APPLICATION**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of

Philippe ANTOINE

Attorney Docket Q63899

Appln. No.: not yet assigned

Group Art Unit: not yet assigned

Confirmation No.: not yet assigned

Examiner: Not yet assigned

Filed: April 24, 2001

For: METHOD TO GENERATE A PSEUDO-RANDOM SEQUENCE OF MULTI-CARRIER  
DATA SYMBOLS, AND RELATED TRANSMITTER AND RECEIVER

**PRELIMINARY AMENDMENT**

Commissioner for Patents  
Washington, D.C. 20231

Sir:

Prior to examination, please amend the above-identified application as follows:

**IN THE SPECIFICATION:**

**The specification is changed as follows:**

Page 1, after the title, insert the heading

**BACKGROUND OF THE INVENTION**

Page 3, after line 8, insert the heading

**SUMMARY OF THE INVENTION**

Page 5, after line 15, insert the heading

**BRIEF DESCRIPTION OF THE DRAWINGS**

after line 27, insert the heading

**DETAILED DESCRIPTION OF THE INVENTION**

1044640-0104640

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**IN THE ABSTRACT:**

**Please delete the present Abstract of the Disclosure and replace it with the following  
new Abstract of the Disclosure.**

## ABSTRACT

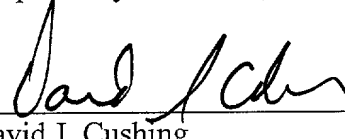
To generate a pseudo-random sequence (PRMS1) of multi-carrier data symbols (DMT0, DMT1, DMT2), a pseudo-random bit sequence (PRBS1) is produced by repetitively generating a pseudo-random sequence of  $L$  bits,  $L$  being a first integer value ( $L=4$ ). To create a multi-carrier data symbol (DMT0, DMT1, DMT2)  $N$  bits are used,  $N$  being a second integer value ( $N=8$ ). The pseudo-random bit sequence (PRBS1) is subdivided into strings of  $N'$  bits,  $N'$  being a third integer value larger than  $N$  ( $N'=9$ ), and  $N$  bits out of each string of  $N'$  bits are used to generate a respective multi-carrier data symbol (DMT0, DMT1, DMT2).  $N'-N$  bits out of each string of  $N'$  bits are left unused.

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REMARKS

Entry and consideration of this Amendment are respectfully requested.

Respectfully submitted,



David J. Cushing

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Date: April 24, 2001

**APPENDIX**

**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

**IN THE SPECIFICATION:**

The specification is changed as follows:

Page 1, after the title, insert the heading

**BACKGROUND OF THE INVENTION**

Page 3, after line 8, insert the heading

**SUMMARY OF THE INVENTION**

Page 5, after line 15, insert the heading

**BRIEF DESCRIPTION OF THE DRAWINGS**

after line 27, insert the heading

**DETAILED DESCRIPTION OF THE INVENTION**

**IN THE ABSTRACT OF DISCLOSURE:**

The abstract is changed as follows:

**ABSTRACT**

**METHOD TO GENERATE A PSEUDO-RANDOM SEQUENCE OF**

**MULTI-CARRIER DATA SYMBOLS, AND RELATED TRANSMITTER AND**

**RECEIVER**

To generate a pseudo-random sequence (PRMS1) of multi-carrier data symbols (DMT0, DMT1, DMT2), a pseudo-random bit sequence (PRBS1) is produced by repetitively generating a

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pseudo-random sequence of  $L$  bits,  $L$  being a first integer value ( $L=4$ ). To create a multi-carrier data symbol (DMT0, DMT1, DMT2)  $N$  bits are used,  $N$  being a second integer value ( $N=8$ ).

The pseudo-random bit sequence (PRBS1) is subdivided into strings of  $N'$  bits,  $N'$  being a third integer value larger than  $N$  ( $N'=9$ ), and  $N$  bits out of each string of  $N'$  bits are used to generate a respective multi-carrier data symbol (DMT0, DMT1, DMT2).  $N'-N$  bits out of each string of  $N'$  bits are left unused.